



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/602,142

Confirmation No.: Unassigned

Applicant:

Sommadossi et al.

Filed: TC/A.AU.:

June 20, 2003 Unassigned

Examiner:

Unassigned

Docket No.:

06171.105076 IDX 1007 CON2

Customer No.:

20786

Title:

Methods and Compositions for Treating Hepatitis C Virus

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

REFERENCES

BOX 1 OF 2

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Respectfully submitted,

Sherry M. Knowles, Esq.

Reg. No. 33,052

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 6

Complete if Known						
Application Number	10/602,142					
Filing Date June 20, 2003						
First Named Inventor	Sommadossi et al.					
Group Art Unit	Unassigned					
Examiner Name	Unassigned					
Attorney Docket Number	06171.105076 IDX 1007 CON2					

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U.S. PATENT DOCUMENTS									
Examiner Initials *	Cite No. 1		ment Kind Code if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clmns, Lns, Where Relevant Passages/Relevant Figs Appear			
	AA	3,480,613	Α	Walton et al.	11-25-1969				
	AB	5,977,061	Α	De Clercq	11-02-1999				
	AC	6,340,690	B1	Bachand et al.	01-22-2002				
	AD	6,348,587	B1	Schinazi et al.	02-2002				
	AE	6,395,716	B1	Gosselin et al. (Novirio / Idenix)	05-28-2002				
	AF	6,444,652	B1	Gosselin et al. (Novirio / Idenix)	09-03-2002				
	AG	6,573,248	B1	Ramasamy et al.	06-03-2003				
	AH	2002/0019363	A1	Ismaili et al.	02-2002				
	ΑI	2002/0055483	Al	Watanabe et al.	05-09-2002				
	AJ	2002/0147160	Al	Bhat et al.	10-10-2002				
	AK	2003/008841	Al	Devos et al.	01-09-2003				
	AL	2003/028013	Al	Wang et al.	02-06-2003	-			
	AM	2003/0050229	A1	Sommadossi et al.	03-13-2003				
	AN	2003/0060400	Al	LaColla et al.	03-27-2003				
	AO	2003/0083307	A1	Devos et al.	05-01-2003				
	AP	2003/0087873	Al	Stuyver et al.	05-08-2003				

	FOREIGN PATENT DOCUMENTS										
Examiner Initials *	Cite No. 1	Foreign Patent Document Office ³ Number Kind Code ² (if known)		Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵			
	AQ	FR	1,521,076	A	Merck & Co. Inc.	04-12-1968					
	AR	FR	1,581,628	Α	Merck & Co. Inc.	09-19-1969	-				
	AS	FR	2,662,165	Α	Univ. Paris Curie	11-22-1991					
	AT	GB	1,163,103	Α	Merck & Co. Inc.	09-04-1969					
	AU	GB	1,209,654	Α	Merck & Co. Inc.	10-21-1970					
	AV	JP	63-215694	Α	Yamasa Shoyu Co. Ltd.	09-08-1988					
	AW	JP	06-228186	Α	Yamasa Shoyu Co. Ltd.	08-16-1994					
	AX	WO	98/16184	A2	ICN Pharmaceuticals	04-23-1998					
	AY	WO	99/43691	A1	Emory U.; U.Ga.R.F.	02-09-1999					
	AZ	WO	00/09531	A2	Novirio Pharm. (Idenix)	02-24-2000					
	AAA	WO	01/32153	A2	Biochem Pharma	05-10-2001					

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Complete if Known Substitute for form 1449A/PTO **Application Number** 10/602,142 Filing Date INFORMATION DISCLOSURE June 20, 2003 First Named Inventor STATEMENT BY APPLICANT Sommadossi et al. Group Art Unit Unassigned **Examiner Name** (use as many sheets as necessary) Unassigned Attorney Docket Number Sheet 6 06171.105076 IDX 1007 CON2

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					EIGN PATENT DOCUMENTS			
Examiner Initials *	Cite No. 1 Foreign Patent Document Office ³ Number Kind Code ² (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T6		
	BA	wo	01/60315	A2	Biochem Pharma	08-23-2001		1
	BB	WO	01/68663	A1	ICN Pharmaceuticals	09-20-2001		
	BC	WO	01/79246	A2	Pharmasset	10-25-2001		
	BD	WO	01/90121	A2	Novirio Pharm. (Idenix)	11-29-2001		
	BE	WO	01/91737	A2	Novirio Pharm. (Idenix)	06-12-2001		
	BF	WO	01/92282	A2	Novirio Pharm. (Idenix)	06-12-2001		
	BG	WO	01/96353	A2	Novirio Pharm. (Idenix)	12-20-2001		
	BH	WO	02/03997	A1	ICN Pharmaceuticals	01-17-2002		
	BI	WO	02/18404	A2	F. Hoffmann-La Roche	03-07-2002		
	BJ	WO	02/32920	A2	Pharmasset	04-25-2002		
	BK	WO	02/48165	A2	Pharmasset	06-20-2002		
	BL	wo	02/057287	A2	Merck & Co. Inc.	07-25-2002		
	BM	wo	02/057425	A2	Merck & Co. Inc.	07-25-2002		
	BN	wo	02/070533	A2	Pharmasset	09-12-2002		
	ВО	WO	02/094289	A1	F. Hoffmann-La Roche	11-28-2002		
	BP	WO	02/100415	A2	F. Hoffmann-La Roche	12-19-2002		
	BQ	wo	03/026589	A2	Idenix; CNRS; U. Montp.	04-03-2003		
	BR	WO	03/026675	A1	Idenix; CNRS; U. Montp.	04-03-2003		
	BS	WO	03/051899	A1	Ribapharm	06-26-2003		
	BT	wo	03/061385	A1	Ribapharm	07-31-2003		
	BU	wo	03/061576	A2	Ribapharm	07-31-2003	.,	
	BV	WO	03/062255	A2	Ribapharm	07-31-2003		
	BW	WO	03/062256	A1	Ribapharm	07-31-2003		İ
	BX	wo	03/062257	A1	Ribapharm	07-31-2003		
	BY	WO	03/063771	A2	Pharmasset	08-07-2003		
	BZ	WO	03/068162	A2	Pharmasset	08-21-2003		
	BAA	WO	03/072757	A2	Biota Inc.	09-04-2003		
	BAB	WO	03/093290	A2	Genelabs Technologies	11-13-2003		
	BAC	WO	04/002422	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		
	BAD	WO	04/002999	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		

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Sheet	3	of	6	Attorney Docket Number	06171.105076 IDX 1007 CON2				

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	<u> </u>	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine,	1_
Initials *	No. 1	journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	CA	ALTMANN et al, "The synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid	}
	ļ	duplex stability," Synlett, Thieme Verlag, Stuttgart, De, 10:853-855 (1994).	<u> </u>
	CB	BAGINSKI, S. G, et al., "Mechanism of action of a pestivirus antiviral compound," PNAS USA,	İ
		97(14):7981-7986 (2000).	
	CC	BEIGELMAN, L.N., et al, "Epimerization during the acetolysis of 3-O-acetyl-5-O-benzoyl-1,2-O-	
		isopropylidene-3-C-methyl- α ,D-ribofuranose. Synthesis of 3'-C-methylnucleosides with the β -D-	
		ribo- and α-D-arabino configurations," Carbohydrate Research, 181:77-88 (1988).	1
	CD	BEIGELMAN, L.N., et al, "A general method for synthesis of 3'-C-alkylnucleosides," Nucleic Acids	
		Symp. Ser., 9:115-118 (1981).	İ
	CE	BERENGUER, M., et al, "Hepatitis B and C viruses: Molecular identification and targeted antiviral	1
		therapies," Proceedings of the Association of American Physicians, 110(2), 98-112 (1998).	
	CF	CARROLL, S.S., et al., "Inhibition of hepatitis C virus RNA replication by 2'-modified nucleoside	1
		analogs," The Journal of Biological Chemistry, 278(14):11979-11984 (2003).	
··· ··-	CG	CZERNECKI, S., et al, "Synthesis of various 3'-branched 2',3'-unsaturated pyrimidine nucleosides as	
		potential anti-HIV agents," J. Org. Chem., 57:7325-7328 (1992).	
	СН	De FRANCESCO, R., et al., "Approaching a new era for hepatitis C virus therapy: Inhibitors of the	1
		NS3-4A serine protease and the NS5B RNA-dependent RNA polymerase," <i>Antiviral Research</i> , 58:1-	
		16 (2003).	
	CI	FAIVRE-BUET, V., et al, "Synthesis of 1'-deoxypsicofuranosyl-deoxynucleosides as potential anti-	İ
]	HIV agents," Nucleosides & Nucleotides, 11(7):1411-1424 (1992).	
	CJ	FARKAS, J., et al., "Nucleic acid components and their analogues. XCIV. Synthesis of 6-amino-9-(1-	<u> </u>
		deoxy-β-D-psicofuranosyl)purine", Collect. Czech. Chem. Commun. 32:2663-2667 (1967).	
	CK	FARKAS, J., et al., "Nucleic acid components and their analogues. LXXIX. Synthesis of methyl 1-	+
		deoxy-D-psicofuranosides substituted at C ₍₁₎ with halo atoms or a mercapto group," Collect. Czech.	
		Chem. Commun., 31:1535-1543 (1996).	
	CL	FEDOROV, I.I., et al, "3'-C-Branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and	
	CL	antiviral properties," J. Med. Chem., 35(24):4567-4575 (1992).	
	CM	FRANCHETTI, P., et al., "2'-C-Methyl analogues of selective adenosine receptor agonists: synthesis	-
	Civi		
	CNI	and binding studies," J. Med. Chem., 41(10):1708-1715 (1998).	├—
	CN	GROUILLER, A., et al., "Novel p-toluenesulfonylation and thionocarbonylation of unprotected	
	100	thymine nucleosides," Synlett, 1993, 221-222 (March 1993).	 -
	CO	HARAGUCHI, K., et al., "Preparation and reactions of 2'- and 3'- vinyl bromides of uracil	
		nucleosides: Versatile synthons for anti-HIV agents," Tetrahedron Letters, 32(28):3391-3394 (1991).	

Examiner Date Signature Considered				7.00
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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	010_1
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Initials *	No. 1	journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	DA	HARAGUCHI, K., et al., "Stereoselective synthesis of 1'-C-branched uracil nucleosides from	
		uridine," Nucleosides & Nucleotides, 14(3-5):417-420 (1995).	
	DB	HARRY-O'KURU, R.E., et al., "A short, flexible route toward 2'-C-branched ribonucleosides",	
	<u> </u>	J.Org. Chem., 62:1754-1759 (1997). (Scheme 11).	
	DC	HARRY-O'KURU, R.E., et al., "2'-C-Alkylribonucleosides: Design, synthesis, and conformation,"	
		Nucleosides & Nucleotides, 16(7-9):1457-1460 (1997). ["Rogers" in #2; correct name in #7]	
	DD	HATTORI, H., et al, "Nucleosides and nucleotides. 175. Structural requirements of the sugar moiety	
		for the antitumor activities of new nucleoside antimetabolites, 1-(3-C-ethynyl-b-D-ribo-	
		pentofuranosyl)cytosine and -uracil," J. Med. Chem., 41:2892-2902 (1998).	
	DE	HREBABECKY, H., et al., "Nucleic acid components and their analogues. CXLIX. Synthesis of	
		pyrimidine nucleosides derived from 1-deoxy-D-psicose," Collect. Czech. Chem. Commun., 37:2059-	
		2065 (1972).	
	DF	HREBABECKY, H., et al. "Synthesis of 7- and 9β-D-psicofuranosylguanine and their 1'-deoxy	
	ļ	derivatives," Collect. Czech. Chem. Commun., 39:2115-2123 (1974).	
	DG	IINO, T., et al., "Nucleosides and nucleotides. 139. Stereoselective synthesis of (2'S)-2'-C-alkyl-2'-	
		deoxyuridines," Nucleosides and Nucleotides, 15(1-3):169-181 (1996).	
	DH	ITOH, Y., et al, "Divergent and stereocontrolled approach to the synthesis of uracil nucleosides	
		branched at the anomeric position," J. Org. Chem., 60(3):656-662 (1995).	
	DI	JOHNSON, C.R., et al, "3'-C-Trifluoromethyl ribonucleosides," Nucleosides & Nucleotides,	
		14(1&2):185-194 (1995).	
	DJ	KAWANA, M., et al., "The deoxygenation of tosylated adenosine derivatives with Grignard	
		reagents," Nucleic Acids Symp. Ser., 17:37-40 (1986).	
	DK	LAVAIRE, S., et al., "3'-Deoxy-3'-C-trifluoromethyl nucleosides: Synthesis and antiviral	
		evaluation," Nucleosides & Nucleotides, 17(12):2267-2280 (1998).	
	DL	LEYSSEN, P. et al., "Perspectives for the treatment of infections with Flaviviridae," Clinical	
		Microbiology Reviews (Washington, D.C.), 13(1):67-82 (January 2000).	
	DM	MARTIN, X., et al., "Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy-β-	
		D-psicofuranosyl) nucleoside," Tetrahedron, 50(22):6689-6694 (1994).	
	DN	MATSUDA, A., et al., "Radical deoxygenation of tert-alcohols in 2'-branched-chain sugar pyrimidine	
		nucleosides: Synthesis and antileukemic activity of 2'-deoxy-2'(S)-methylcytidine," Chem. Pharm.	
		Bull., 35(9):3967-3970 (1987).	
	DO	MATSUDA, A., et al., "Alkyl addition reaction of pyrimidine 2'-ketonucleosides: Synthesis of 2'-	
	ŀ	branched-chain sugar pyrimidine nucleosides (Nucleosides and Nucleotides. LXXXI)," Chem.	
		Pharm. Bull., 36(3):945-953 (1988).	

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		34250	610_1
		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Te
	EA	MATSUDA, A., et al., "Nucleosides and Nucleotides. 94. Radical deoxygenation of tert-alcohols in	
		1-(2-C-alkylpentofuranosyl)pyrimidines: Synthesis of (2'S)-2'-deoxy-2'-C-methylcytidine, an	
		antileukemic nucleoside, "J. Med. Chem., 34:234-239 (1991).	
_	EB	MATSUDA, A., et al., "Nucleosides and Nucleotides. 104. Radical and palladium-catalyzed	
		deoxygenation of the allylic alcohol systems in the sugar moiety of pyrimidine nucleosides,"	
		Nucleosides & Nucleotides, 11(2/4):197-226 (1992).	
	EC	MIKHAILOV, S.N., et al., "Synthesis and properties of 3'C-methylnucleosides and their phosphoric	
		esters," Carbohydrate Research, 124:75-96 (1983).	1
	ED	MIKHAILOV, S.N., et al., "Substrate properties of C'-methylnucleoside and C'-methyl-2'-	
		deoxynucleoside 5'-triphosphates in RNA and DNA synthesis reactions catalysed by RNA and DNA	
		polymerases," Nucleosides & Nucleotides, 10(1-3):339-343 (1991).	
	EE	MIKHAILOV, S.N., et al, "Hydrolysis of 2'- and 3'-C-methyluridine 2'c3'-cyclic monophosphates	
		and interconversion and dephosphorylation of the resulting 2'- and 3'-monophosphates: Comparison	
	1	with the reactions of uridine monophosphates," J. Org. Chem., 57 (15):4122-4126 (1992).	
	EF	NUTT, R.F., et al., "Branched-chain sugar nucleosides. III. 3'-C-methyladenine", J.Org. Chem.,	
		33:1789-1795 (1968).	
	EG	OIVANEN, M., et al, "Additional evidence for the exceptional mechanism of the acid-catalyzed	
	}	hydrolysis of 4-oxopyrimidine nucleosides: Hydrolysis of 1-(1-alkoxyalkyl)uracils, seconucleosides,	į
		3'-C-alkyl nucleosides and nucleoside 3',5'-cyclic monophosphates," J. Chem. Soc. Perkin Trans. 2,	
		1994:309-314 (1994).	<u> </u>
	EH	ONG, S.P., et al, "Synthesis of 3'-C-methyladenosine and 3'-C-methyluridine diphosphates and their	
		interaction with the ribonucleoside diphosphate reductase from Corynebacterium nephridii,"	
		Biochemistry, 31(45):11210-11215 (1992).	
	EI	Oral Session V, Hepatitis C Virus, Flaviviridae; 16 th International Conference on Antiviral Research	
	ļ	(April 27, 2003, Savannah, Ga.) p A75-77.	
	EJ	PAN-ZHOU, X-R, et al., "Differential effects of antiretroviral nucleoside analogs on mitochondrial	
		function in HepG2 cells," Antimicrob. Agents Chemother., 44:496-503 (2000).	
	EK	ROSENTHAL, A., et al., "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-	
		butyl)uridine Carbohydrate Research, 79:235-242 (1980).	
****	EL	SAMANO, V., et al., "Synthesis and radical-induced ring-opening reactions of 2'-deoxyadenosine-2'-	
		spirocyclopropane and its uridine analogue. Mechanistic probe for ribonucleotide reductases," J. Am.	
		Chem. Soc., 114:4007-4008 (1992).	

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STATEMENT BY APPLICANT				First Named Inventor	Sommadossi et al.	
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		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Té
	FA	SAMANO, V., et al., "Nucleic acid related compounds. 77. 2',3'-Didehydro-2',3'-dideoxy-2'(and	
		3')-methylnucleosides via [3,3]-sigmatropic rearrangements of 2'(and 3')-methylene-3'(and 2')-O-	
		thiocarbonyl derivatives and radical reduction of a 2'-chloro-3'-methylene analogue," Can. J. Chem., 71:186-191 (1993).	
	FB	SCHMIT, C., et al, "The effects of 2'- and 3'-alkyl substituents on oligonucleotide hybridization and	
		stability," Biorganic & Medicinal Chemistry Letters, 4(16):1969-1974 (1994). ["Altmann"]	
	FC	SERAFINOWSKI, P.J., et al., "New method for the preparation of some 2'- and 3'-trifluoromethyl-	\top
		2',3'-dideoxyuridine derivatives," <i>Tetrahedron</i> (Elsevier Science Publishers), 56(2):333-339 (1999).	
	FD	SHARMA, P.K., et al., "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents,"	
		Nucleosides, Nucleotides and Nucleic Acids, 19(4):757-774 (2000).	
	FE	SOMMADOSSI J-P, et al., "Comparison of cytotoxicity of the (-)- and (+)-enantiomer of 2',3'-	1
		dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells" Biochemical Pharmacology,	
		44:1921-1925 (1992).	
•	FF	SOMMADOSSI J-P, et al., "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2-	
	·	propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro" Antimicrobial	ŀ
	1	Agents and Chemotherapy, 31:452-454 (1987).	
	FG	TRITSCH, D., et al., "3'-β-ethynyl and 2'-deoxy-3'-β-ethynyl adenosines: First 3'-β-branched	
		adenosines substrates of adenosine deaminase," Bioorganic & Medicinal Chemistry Letters, 10:139-	
		141 (2000).	
	FH	TUNITSKAYA, V.L., et al., "Substrate properties of C'-methyl UTP derivatives in T7 RNA	
		polymerase reactions. Evidence for N-type NTP conformation," FEBS Letters, 400:263-266 (1997).	
	FI	USUI, H., et al., "Synthesis of 2'-deoxy-8,2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine	1
		(Nucleosides and Nucleotides. LXIV)," Chem. Pharm. Bull., 34(1):15-23 (1986).	
	FJ	WALCZAK, K., et al., "Synthesis of 1-(3-alkyl-2,3-dideoxy-D-pentofuranosyl)uracils with potential	
		anti-HIV activity," Acta Chemica Scand., 45:930-934 (1991).	ŀ
	FK	WALTON, E., et al., "Branched-chain sugar nucleosides. V. Synthesis and antiviral properties of	
		several branched-chain sugar nucleotides," J. Med. Chem., 12:306-309 (1969).	
	FL	WOLFE, M.S., et al., "A concise synthesis of 2'-C-methylribonucleosides," Tetrahedron Letters,	
		36(42):7611-7614 (1995).	
	FM	WU, JC., et al., "A new stereospecific synthesis of [3.1.0] bicyclic cyclopropano analog of 2',3'-	
		dideoxyuridine, <i>Tetrahedron</i> , 46(7):2587-2592 (1990).	

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